

MULTIPLEXER HAVING IMPROVED EFFICIENCY

ABSTRACT OF THE INVENTION

5 The multiplexer includes multi-mode waveguides positioned on a base
such that a plurality of the waveguides serve as input waveguides and one or more
of the waveguides serve as an output waveguide. The waveguides intersect one
another such that light signals traveling along a plurality of the input waveguides
are combined onto an output waveguide. At least a portion of the input
10 waveguides including a taper configured to taper the width of a light signal
traveling along the input waveguide toward the output waveguide.